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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/981,839	10/19/2001	Cheng Chi Wang	4459-068	7062

7590 03/19/2003

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[REDACTED] EXAMINER

CHOWDHURY, TARIFUR RASHID

[REDACTED] ART UNIT [REDACTED] PAPER NUMBER

2871

DATE MAILED: 03/19/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	09/981,839	WANG, CHENG CHI
	Examiner Tarifur R Chowdhury	Art Unit 2871

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on ____.
- 2a) This action is **FINAL**. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.
- 4) Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) Claim(s) ____ is/are allowed.
- 6) Claim(s) 1-6,9 and 11-15 is/are rejected.
- 7) Claim(s) 7,8,10 and 16 is/are objected to.
- 8) Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 19 October 2001 is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) The proposed drawing correction filed on ____ is: a) approved b) disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) All b) Some * c) None of:
1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. ____.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) The translation of the foreign language provisional application has been received.
- 15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____. | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Specification

2. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. **Claims 1, 3-5, 9 and 12-14 are rejected under 35 U.S.C. 102(e) as being anticipated by Kaneko, US 2002/0145689.**

5. Kaneko discloses and shows in Fig. 1, a transreflective liquid crystal display, comprising:

- a top plate (2) comprising a transparent electrode (4);
- a bottom plate (1) comprising transreflective electrode (3) of aluminum compound (pages 3-4, paragraph 0055 ; page 6, paragraph 0089).
- A liquid crystal layer (6) sandwiched between the top plate and the bottom

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plate; and

- A light source (16) behind the bottom plate,

Wherein an image is generated by the transflective liquid crystal display when either ambient light is incident on the surface of the top plate or when light is generated by the light source (page 1, paragraph 0002).

Accordingly, claims 1 and 9 are anticipated.

As to claims 3 and 12, Kaneko discloses that the transflective electrodes have a visible transmittance of not less than 10% (page 2, paragraph 0027).

As to claims 4, 5, 13 and 14, Kaneko discloses that the thickness of the transflective electrodes is $0.2 \mu\text{m}$ (200\AA) or less.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. **Claims 2, 6, 11 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kaneko as applied to claims 1, 3-5, 9 and 12-14 above.**

8. Kaneko does not explicitly disclose that the transflective display is of an active matrix type. However, it is common and known in the art to use an active matrix type liquid crystal display for several reasons such as to reduce crosstalk. Further, a typical structure for an active matrix liquid crystal display includes a plurality of scan lines, a plurality of data lines formed perpendicular to the scan lines, the scan lines and the data

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lines being arranged to form a matrix of pixel regions with each of the pixel regions bounded by two adjacent scan lines and two adjacent data lines, and a plurality of thin film transistors formed at intersections between the scan lines and the data lines.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the display of Kaneko such that it works as an active matrix display so that crosstalk is reduced.

Accordingly, claims 2 and 11 would have been obvious.

As to claims 6 and 15, forming a transflective electrode having a thickness of about 250 angstroms is common and known in the art and thus would have been obvious to optimize device performance.

Allowable Subject Matter

9. Claims 7, 8, 10 and 16 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tarifur R Chowdhury whose telephone number is (703) 308-4115. The examiner can normally be reached on M-Th (6:30-5:00) Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William L Sikes can be reached on (703) 305-4842. The fax phone

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numbers for the organization where this application or proceeding is assigned are (703) 746-7005 for regular communications and (703) 308-7724 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1782.



T. Chowdhury
Patent Examiner
Technology Center 2800

TRC

March 13, 2003